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MF APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/185,248	11/03/98	EIDSON	NW M INTL-0136-US

EXAMINER
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ARMSTRONG, A	
ART UNIT	PAPER NUMBER

2641  
DATE MAILED:

02/15/01

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WM01/0215

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

<b>Office Action Summary</b>	Application No. 09/185,248	Applicant(s) EIDSON ET AL.	
	Examiner Angela A. Armstrong	Art Unit 2641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 January 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8;10-12;16;19-21;23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8;10-12;16;19-21;23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

**Attachment(s)**

- |  |  |
|--|--|
| 15) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                   | 18) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____. |
| 16) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)          | 19) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 17) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. | 20) <input type="checkbox"/> Other: _____.                                   |

### DETAILED ACTION

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

#### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 19-21 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 19, and by dependency claims 20, 21 and 23, recites the limitation "the first data stream" in lines 2 and 4. There is insufficient antecedent basis for this limitation in the claim.
4. Claim 21 recites the limitation "the first data stream comprises an audio data stream" in line 1. There is insufficient antecedent basis for this limitation in the claim. Regarding claim 21, it is unclear as to what applicant regards as the invention with respect to this limitation. As claim 19 (of which claim 21 is dependent) recites "receiving a video data stream", it is unclear what type of data stream is received and decoded. For further prosecution, the examiner assumes that if instead of a video stream an audio stream is received, and the claim will be examined as such.

*Claim Objections*

5. Claim 23 is objected to because of the following informalities: As written, claim 23 depends on cancelled claim 22. For further prosecution, the examiner assumes applicant intended for the claim to depend on claim 19 (since cancelled claim 22 has been incorporated into claim 19). The claim will be examined as such. Appropriate correction is required.

*Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farhangi et al. (US Patent No. 5,647,008) in view of Bergher et al. ("Dolby AC-3<sup>TM</sup> and MPEG-2 Audio Decoder IC with 6-channels Output", IEEE Trans. on Consumer Electronics, August 1997).

7. Regarding claims 1, 7, 8, and 11;

Receiving a first audio data stream in a first perceptually based format is taught by Farhangi et al. at Figure 2, col. 3, lines 9-67; col. 4, lines 1-61;

Obtaining a second audio data stream in a raw format is taught by Farhangi et al. at Figure 2, col. 3, lines 9-67; col. 4, lines 1-61;

Combining the decoded first audio data stream with the second audio data stream is taught by Farhangi et al. at Figure 2, col. 3, lines 9-67; col. 4, lines 1-61;

8. Farhangi et al. discloses receiving compressed data streams and decoding the data streams into a raw format, however they do not specifically teach that the received data is encoded in Dolby AC-3 or MPEG-2 format or that the raw format is linear pulse code modulated. Refer to Bergher et al. who teach an audio decoder that receives Dolby AC-3 and MPEG-2 data streams and decodes the data into pulse code modulated formats for use in US digital TV and HDTV, DVD, and general multimedia applications (Abstract; page 357; page 358).

9. Therefore, it would have been obvious to one of ordinary skill at the time of invention to modify the multimedia signal mixing system of Farhangi et al. to implement receiving Dolby AC-3 and MPEG-2 coded data and decode the data into a pulse code modulated format to allow for recovery of the original pulse code modulated data for use in general multimedia applications as suggested by Bergher et al., to allow for mixing the raw format signals with other raw format signals to produce combined output signals as suggested by Farhangi et al.

Regarding claims 2, 3 and 4

10. Farhangi et al. teaches encoding the combined signals at Figure 2, element 296. However they do not specifically teach encoding the combined data in an AC-3 or MPEG format. Refer to Bergher et al. who teach that AC-3 and MPEG compress signals into stream that provides

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reduced transmission bandwidth or recording area without audibly degrading the perceived quality.

11. Therefore, it would have been obvious to one of ordinary skill at the time of invention to modify the system of Farhangi et al. to encode the combined signals in either an AC-3 or MPEG format for the purpose of compressing the signal to achieve reduced transmission bandwidth or recording area without degrading the audio quality as taught by Bergher et al.

Regarding claim 5

12. Transmitting the encoded combined audio data stream to a circuit is taught by Farhangi et al. at col. 7, lines 18-21;

13. Regarding claims 6 and 10,

Combined audio data stream comprises a digital data stream is taught by Farhangi et al. at figure 2,

14. Claims 12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farhangi et al. (US Patent No. 5,647,008) in view of Bergher et al. and Hinderks (US Patent No. 5,706,335).

15. Regarding claims 12 and 16;

Receive a first audio data stream in a first perceptually based format is taught by Farhangi et al. at Figure 2, col. 3, lines 9-67; col. 4, lines 1-61;

Decode the first audio data stream into a raw format is taught by Farhangi et al. at Figure 2, col. 3, lines 9-67; col. 4, lines 1-61;

Acquire a second audio data stream in a raw format is taught by Farhangi et al. at Figure 2, col. 3, lines 9-67; col. 4, lines 1-61;

Combine the decoded first audio data stream with the second audio data stream is taught by Farhangi et al. at Figure 2, col. 3, lines 9-67; col. 4, lines 1-61;

16. Farhangi et al. teaches encoding the combined signals at Figure 2, element 296. However they do not specifically teach encoding the combined data in a perceptually based format. Refer to Bergher et al. who teach that perceptually based formats such as AC-3 and MPEG compress signals into stream that provides reduced transmission bandwidth or recording area without audibly degrading the perceived quality.

17. Therefore, it would have been obvious to one of ordinary skill at the time of invention to modify the system of Farhangi et al. to encode the combined signals in either a perceptually based format for the purpose of compressing the signal to achieve reduced transmission bandwidth or recording area without degrading the audio quality as taught by Bergher et al.

18. Farhangi et al. teach transmitting the encoded combined audio data stream at col. 7, lines 18-21 for further processing or handling and they implement a CODEC on the receiving end of the system. However, they do not specifically teach that the combined encoded data is transmitted to a CODEC circuit. Refer to Hinderks who teaches transmitting coded signals through a transmission channel with limited bandwidth using a CODEC for the purpose of allowing for two-way communication between multiple devices (col. 2, lines 33-37).

Therefore, it would have been obvious to one of ordinary skill at the time of invention to modify the system of Farhangi et al. to transmit the combined encoded signals to a CODEC circuit to allow for two-way communication between multiple devices as suggested by Hinderks.

19. Claims 19-21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farhangi et al. in view of Bestler et al. (US Patent No. 5,638,112).

Regarding claims 19-21 and 23,

20. Farhangi et al. do not disclose receiving a video data stream in a MPEG compressed format. However, refer to Bestler et al. who teach a system for processing television signals in an analog or digital format which receives signals (audio and video), decodes the signals and combines the signals for the purpose of achieving various desirable effects when processing television signals (abstract, col. 1, lines 34-67 continuing to col. 4, 1-32).

21. Therefore, to the extent that Farhangi et al. do not disclose a MPEG compressed video format, it would have been obvious to one of ordinary skill at the time of invention to modify the system to also process video signals for the purpose of providing for the processing of television signals, as taught by Bestler et al. in the mixing multimedia system of Farhangi et al.



Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela A. Armstrong whose telephone number is 703-308-6258. The examiner can normally be reached on Monday-Thursday 7:30-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on 703-305-6137. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-6306 for regular communications and 703-308-6296 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

AAA  
February 14, 2001



**TĀLIVALDIS I. ŠMITS**  
**PATENT EXAMINER**